

Remarks

Claims 1 through 10 and 13 through 20 are now pending.

The Rejection

The following patents have been relied upon to reject various of the Applicants' claims:

	<u>U.S. Patents</u>
6,090,880	Zimmer, et al. (Zimmer)
6,013,718	Cabioch et al. (Cabioch)
6,075,084	Mabry et al. (Mabry)

Rejections Under 35 U.S.C. Section 112

Claims 1 through 20 have been rejected under 35 U.S.C. Section 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is believed that the Examiner's objections under 35 U.S.C. Section 112, second paragraph, have been remedied by the amendments made to the Applicants' claim 1.

Rejection Under 35 U.S.C. Section 103

Claims 1 through 20, prior to their amendment, have been rejected under 35 U.S.C. Section 103(a) as being obvious in view of Zimmer when taken with Cabioch and Mabry.

A reconsideration of the rejection of the Applicants' claims is requested in view of amendments made to the claims and comments herein.

The Invention

It is important to appreciate that the Applicants' claimed process is directed to a controlled mixing process in an internal rubber mixer for a rubber composition which is comprised of diene-based elastomer(s) reinforcing filler comprised of silica containing carbon black and, optionally, at least one additional reinforcing filler.

In the controlled mixing process, the temperature of the rubber mixture is allowed to increase to a predetermined temperature (caused by the high shear mixing of the rubber

composition) wherein, thereafter, in the same mixing step, the rubber mixture is allowed to continue to be mixed at a temperature with about 10°C of said predetermined temperature for a period of time.

Discussion

The Zimmer reference illustrates a mixing of a tin coupled, or tin capped, diene-based rubber composition which contains a silicon-modified carbon black reinforcement. The ingredients are mentioned to be mixed in at least two stages, namely at least one non-productive mix stage followed by a productive mix stage in which sulfur and curative(s) are added. The temperature in the non-productive mixing stage(s) is allowed to reach a temperature between 140°C and 190°C.

However, there is no teaching or suggestion in Zimmer to provide an extended mixing of the ingredients (the coupled, or capped diene-based elastomer and silicon-modified carbon black) in the first non-productive mixing step at a temperature within 10°C of the “reached” temperature between 140°C and 190°C (after reaching the predetermined temperature) of which the extended mixing step is designed and required by the Applicants’ process.

Therefore, Zimmer is procedurally materially deficient by itself for a purpose of rejecting the Applicants’ amended process claims as being obvious in the sense of 35 U.S.C. Section 103(a).

Cabioch (which it appears that the Examiner has not fully related to the cited Zimmer reference) is directed to a rubber composition composed of a diene polymer having a chain of a silanol functional group or a polysiloxane block which has a silanol end wherein the rubber composition contains silica as a predominate reinforcing filler.

It appears that the Applicants’ required extended mixing process (required to include a silica-modified carbon black) is not taught or suggested by Cabioch. Furthermore, Cabioch

is directed to use of a specified terminated elastomer and therefore does not appear to teach or suggest the coupled, or capped, diene elastomer required by the Applicants' process.

Therefore, Cabioch is procedurally materially deficient by itself for a purpose of rejecting the Applicants' amended process claims as being obvious in the sense of 35 U.S.C. Section 103(a).

Further, Cabioch does not remedy the aforesaid procedural deficiency of Zimmer and the combination of Zimmer and Cabioch does not make out a prima facie case of obviousness of the process of the Applicants' amended claims in the sense of 35 U.S.C. Section 103(a) without a substantial reconstruction of both of the references without any motivation to do in the absence of the Applicants' own specification and claims.

Mabry (which it appears that the Examiner has not fully related to the cited Zimmer reference) is directed to elastomer composite blends produced by wet mixing (latex mixing of an elastomer) followed by dry mixing (mixing the resulting coagulum with additional elastomer).

It appears that the Applicants' required extended mixing process (required to include a silica-modified carbon black) is not taught or suggested by Mabry.

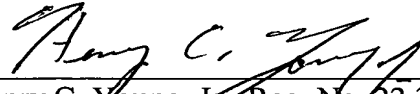
Therefore, Mabry is procedurally materially deficient by itself for a purpose of rejecting the Applicants' amended process claims as being obvious in the sense of 35 U.S.C. Section 103(a).

Further, Mabry does not remedy the aforesaid procedural deficiency of Zimmer (nor the aforesaid deficiency of Cabioch) and the combination of Zimmer and either of Mabry and Cabioch does not make out a prima facie case of obviousness of the process of the Applicants' amended claims in the sense of 35 U.S.C. Section 103(a) without a substantial reconstruction of all of the references without any motivation to do in the absence of the Applicants' own specification and claims.

Conclusion

In view of the amendments made to the claims and comments herein it is contended that the process of the Applicants' amended claims are not obvious over Zimmer whether taken any of Cabioch and Mabry in the sense of 35 U.S.C. Section 103(a) and that a prima facie case of obviousness of the Applicants' process claims is not made out.

Respectfully submitted,



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